the Capitol Hill Monitor

April 1993

U.S. CUSTOMS SERVICE

by Dr. Bill Hardman

The First Congress authorized the appointment of customs collectors in July 1789. From that Act has developed the U.S. Customs Service. Therefore, the U.S. Customs Service can claim a heritage almost as old as the nation itself. The Bureau of Customs was established as a separate element under the Treasury Department in 1927. This bureau was redesignated the United States Customs Service in 1973.

The Customs Service is responsible for the collection of tariffs on imports and enforces customs and related laws. Included in the latter responsibility is the interdiction of material deemed contraband, including illegal narcotics and weapons. The service is also responsible for the processing of persons, carriers, cargo and mail in to and out of the United States.

Additionally, the service detects and apprehends people that are alleged to have committed frauds and other actions in order to get around customs laws, including trademark, copyright and patent provisions, quotas, and marking requirements for imported items. It also enforces provisions of law for over 40 other agencies at the "borders." (Some of these "borders," because of air travel, are in the interior of the country.)

This newsletter issue was prepared using Xerox's Ventura, Version 1.1, and print on a HP LaserJet IIP.
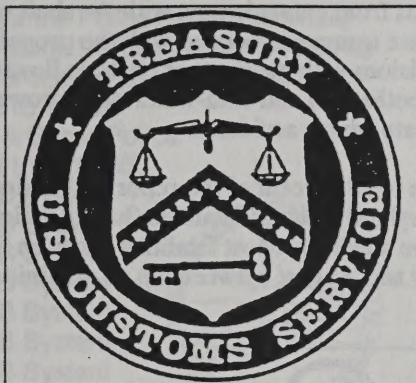
The Customs Service headquarters is located at 1301 Constitution Ave, NW. The United States, including the Virgin islands and Puerto Rico, is divided into seven customs regions, which control 44 district/area offices and over 240 ports of entry. Additionally, the service maintains field offices in Bangkok, Bonn, Dublin, Hermosillo, Hong Kong, London, Mexico City, Milan, Monterey, Ottawa, Panama City, Paris, Rome, Seoul, Singapore, Tokyo, Vienna and The Hague. It also operates a canine (K-9) training center at Front Royal.

Maryland is in the Northeast Region (Sector 1) and Washington and Virginia are in the Southeast Region (Sector 4). Sector dispatch centers/region headquarters are Boston and Miami, respectively. The Baltimore District headquarters is located at 40 S. Gay St. and the Washington District headquarters is located at Washington-Dulles International Airport.

The service uses a combination of HF, VHF, and UHF for its operations nation-wide. Each of the seven regions operates a dispatch center on the VHF radio system, where they maintain contact with units through a complex system of repeaters and phone lines. Each of the seven regions identifies as "sector," although they should use the region number (e.g., "sector 4" for the Southeast Region).

Radio frequency channelization patterns vary from sector to sector, and even within sectors, depending on requirements for local coordination and similar factors. The most commonly heard frequencies, particularly in our area, are listed below. (The bulk of radio traffic in our area is on 165.2375).

165.2375	s	Operations, Direct
165.2375	r	Primary Operations
166.4625	s	Treasury Department Common
166.5875	s	Investigations
165.7375	s	Special Operations
166.4875	s	Administrative Operations
165.5125	s	Special Operations
165.5125	r	Special Operations

Input to 165.2375 is 166.4375. All use a CTCSS tone of 100.0 and all radios are DES equipped.

The full call signs for units use a combination of the sector number/type of unit (letter)/geographic area within the sector (1 digit)/and specific unit (2 digit); for example, 4-Alpha-411. As noted, the sectors for our area are 1 and

4. Also heard is sector 0 (zero), the Customs Service headquarters in Washington. Selected letter codes are listed below.

The most common geographic designators in this area are 4 for Washington, 6 for Dulles/Northern Virginia and 9 for Baltimore. A "0" (zero) as the geographic code is from Customs Service headquarters. (Incidentally, the 0 is also often left out, Lima 077, for example, becomes Lima 77). Units are numbered from 00 to 99 as required. "00" is always a base. In other words, India 400 is the port inspection office for the Washington area that is located at Dulles.

Some Letter Codes are:

Alpha	Investigations Unit
Charlie	Communications Personnel
Delta	Contraband Enforcement
India	Port Inspectors
Lima	Aviation Units
Mike	Marine Units
Papa	Patrol Units
X-Ray	Detention/Prisoner Transportation Units

Call Sign Examples:
4-Alpha-400 is
Sector 4 (Miami), investigations unit, Washington; base

1-India-922 is
Sector 1 (Boston), port inspector, Baltimore, unit 22

If you happen to hear "*Customs 1*" or "*Customs 2*" it is the Com missioner and Deputy Commissioner of the U.S. Customs Service, respectively.

Because of the manner in which the system is set up, the sector designation is often left out in actual use. In other words, 4Alpha411 becomes simply "Alpha 411." Typical transmissions would be "Sector 4, this is 4X-Ray411. I'll be out at the Loudoun County Sheriff's office." What you more likely will hear is "Sector, X- Ray411, out at Loudoun County."

Much of the traffic is rather mundane, but there are periods of some good listening; for example, when a combination of aircraft, motor units, and boats were used to follow some gun smugglers from DC down the Potomac to Norfolk - all of which could be heard. Very often, Customs units will participate with other agencies in major "drug busts" as part of the Drug Enforcement Task Force.

SCANNING NEW HORIZONS

by Alan Henney

This coming summer will offer great listening opportunities for scanner buffs, as more boating and sports enthusiasts take to the water. Looking at a map of Maryland and Virginia one can see why the water is so popular: Lakes, rivers, the Chesapeake Bay and Atlantic Ocean exert strong appeal for recreational boaters. For scanner buffs, scanning just wouldn't be the same without the summer season.

In the State of Maryland alone, we have lots of water-related activity to monitor. Maryland police, for example, record more than 300 recreational boating accidents each year, most of which occur in Anne Arundel, Baltimore, Calvert and Cecil counties.

Injuries from boating accidents are not as numerous as those caused by motor vehicle accidents, but are just as severe. Injuries include burns, head and chest trauma, injuries from entanglement with the shaft of the boat; and severe trauma associated with the propeller, water skiing, collisions with piers, other boats or floating debris. Hypothermia and cold-water near-drownings further complicate winter accidents.

Five to 10 percent of the reported boating accidents in Maryland result in fatalities (half of which police say involve alcohol). Most fatalities occur on Saturdays during July and August between 4 p.m. and midnight.
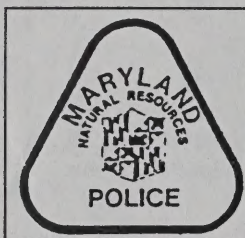
Maryland Natural Resources Police

The Natural Resources Police is the oldest state police agency in Maryland, beginning in 1868 as the Oyster Police. Maryland Natural Resources Police, formerly known as the Marine Police, is the principal state agency providing law enforcement, emergency medical response and search & rescue services on state waterways. Besides the Chesapeake Bay and its tributaries, MNRP also provides search and rescue services in the remote-rural and woodland areas of the state. The Natural Resources Police is the only police agency in the state to require all officers to hold EMT certification.

The NRP operates statewide with a 24-hour communications center in the basement of the Tawes State Office Building in Annapolis. All Natural Resources Police radio traffic is conducted from this communications center between the hours of 16:00 and 08:00.

MNRP, because of its broad range of responsibilities, operates on a variety of frequencies (with 39.22 and 151.205 being the most active). While some MNRP units patrol state waterways (primarily on 39.22), other MNRP officers serve as Maryland's fish & game police (on 151.205). At most locations 159.24 is the input to 151.205 - at others, it's just the opposite. CTCSS tones vary on the input to allow the user to select different repeater sites. MNRP experimented with the ACSB (Amplitude Companded Side Band) channels which currently appear to be inactive.

The MNRP Marine Police dispatcher is licensed on the four listed VHF marine channels. DNR patrol boats, however, have access to any VHF marine channel (including 156.85). The DNR dispatcher also may operate on MSP's 44.74 and 44.9. MNRP officers, who use the MSP 10 code, typically identify using their 3300 and 3500 series MSP-assigned designations.

31.3400	s	F1 (Coordination w/other DNR elements)
31.4600	s	F2 (Coordination w/other DNR elements)
31.9000	s	Enforcement
37.0800	s	Enforcement
37.3600	s	Enforcement
39.1000	s	F1: Marine Police (MSP Statewide)
39.2200	s	F2: Marine Police Primary (110.9 Hz)
151.2050	r	Fish & Game Police (118.8 Hz)
151.2050	i	Input to 159.24
159.2400	r	Fish & Game Police
159.2400	i	Input to 151.205
151.1825	r	ACSB System
151.2275	r	ACSB System
151.2725	r	ACSB System
151.2875	r	ACSB System
151.3775	r	ACSB System
151.3925	r	ACSB System
151.4075	r	ACSB System
155.4750	s	NLEEF
155.8500	-	Extender
156.0525	i	input to All Seven ACSB Channels
156.4500	s	Marine Channel 9
156.5000	s	Marine Channel 10
156.8000	s	Marine Channel 16
157.1000	s	Marine Channel 22A

Virginia Marine Resources Commission

In Virginia, the Marine Resources Commission provides law enforcement services and public assistance on state waterways. This includes all bodies of water from the Maryland to the North Carolina state lines, the navigable rivers from the Atlantic coast inland to the fall line, and the bays and inlets off the Potomac which lie within Virginia.

Like the MNRP marine police, MRC marine units communicate on both VHF marine channels and on an internal radio system. MRC land vehicles, water-borne vessels, hand-held radios and aircraft operate on either system. The MRC operations center in Newport News coordinates activity statewide on both systems. The MRC administrative headquarters uses the internal radio system as well.

The VHF marine system employs two major base stations, one at Burgess in Northumberland County and the other at Buckroe Beach in the City of Hampton. The operations center controls each transmit site (six VHF marine channels are available, but primary communications are conducted on channels 16 and 17). Like in Maryland, VHF marine radios in patrol boats are synthesized and

have access to all American VHF marine channels.

The internal radio system employs 151.28 repeater stations at the Burgess and Buckroe sites (a future Richmond 151.28 repeater site may be in the works). At present, 159.42 is the input to each 151.28 repeater site. As a result, the desired repeater must be selected by CTCSS tone. To enhance geographical coverage, separate input frequencies are planned for each repeater site.

Other proposed improvements include expansion of the 151.28 radio system to cover the upper James River to Richmond, provision of SIRS (39.54) capability, provision of off-hours and emergency dispatch service by the Department of Emergency Services, and the addition of back-up base station facilities at the operations center.

MRC units utilize 151.28 for repeater and talk-around communication. A base station at the Weirwood airport, near Exmore in Northampton County, has similar operating capability. Mobile units also have the capability of communicating with other agencies on the statewide search & rescue disaster channels.

|		
39.5400	s	SIRS (Statewide Interdept Radio System)
44.8000	s	
44.9600	s	
151.2800	r	Primary Operations (136.5 Hz)
159.2250	i	Proposed additional input to 151.28
159.3750	i	Proposed additional input to 151.28
159.4200	i	Current input to all 151.28 repeaters
156.4500	s	Marine Channel 9
156.5750	s	Marine Channel 71
156.6000	s	Marine Channel 12
156.8000	s	Marine Channel 16
156.8500	s	Marine Channel 17
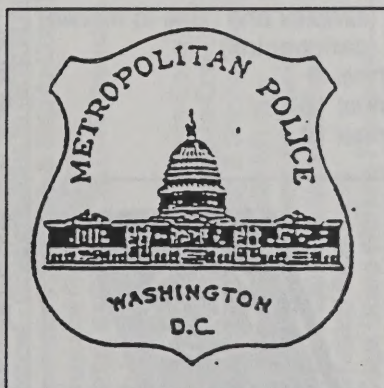
MPD Harbor Branch

In the District of Columbia, MPD's Harbor Branch provides law enforcement on the Potomac and Anacostia rivers north of the Woodrow Wilson Bridge. The Harbor Branch, with headquarters at Washington Channel Pier 5, generally uses 156.85 for internal communication. Like other SOD elements, the Harbor Branch routinely monitors Citywide 1, 460.325, where it identifies as Radio 160, 289 and 291. Harbor Branch patrol boats identify as cruisers in the 80x series.

The Harbor Branch often communicates with the Wilson Bridge (on 156.6 and 156.65), commercial boat lines (on

156.9), recreational boaters and marinas (on 156.425) and with the Coast Guard (on 157.1 and 157.15). Patrol boats operate on any American marine frequency. The base, however, is authorized on only the below channels.

156.4250	s	Marine Channel 68
156.4500	s	Marine Channel 09
156.6000	s	Marine Channel 12
156.8000	s	Marine Channel 16
156.8500	s	Marine Channel 17
156.9000	s	Marine Channel 18A
157.0250	s	Marine Channel 80A
157.1000	s	Marine Channel 22A
157.1500	s	Marine Channel 23A
157.1750	s	Marine Channel 83A
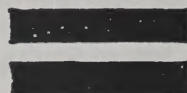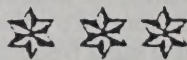
Delaware Department of Natural Resources & Environmental Control

In Delaware, a 24-hour statewide communications center in Dover dispatches the DNREC Environmental Protection Officers that patrol the state parks and inland waters. Marine patrol vessels identify using single phonetic-letter designations (such as Marine Patrol Boat Hotel). All DNREC officers use DSP 10 codes. DNREC's first channel, as with many of Delaware's municipal police departments, operates in the duplex mode (transmit on 44.68 and receive 44.72). VHF marine channels are normally only used by the patrol boats to communicate with the Coast Guard (normally 157.05 and 157.1), recreational boaters (on 156.425) or internally (on 156.85).

44.6800	-	F1: DNREC (mobile to base)
44.7200	d	F2: DNREC (simplex and base to mobile)
45.2800	s	F3: DNREC (park control)
156.4500	s	Marine Channel 9
156.8000	s	Marine Channel 16
156.8500	s	Marine Channel 17

Local Federal VHF Marine Users

R. Crain provides us with several notes regarding federal VHF marine radio users in the Baltimore area. With a few exceptions, such as with USCG stations Annapolis and Curtis Bay, most USCG stations operate on the same channel as their respective group.

156.6000	s	Annapolis Navy Station Port Control
157.0500	s	Station Annapolis and Group Cape May, includes lower Delaware
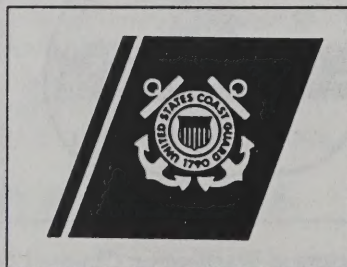
157.0750	s	Marine Safety Office, Baltimore
157.1250	s	Naval Academy's Robert Crown Sailing Center
157.1500	s	Group Baltimore and Group Eastern Shore, includes Ocean City
157.1750	s	Station Curtis Bay and Group Hampton Roads

In addition to the routine Coast Guard channels, which nearly all Coast Guard facilities have access to, selected Coast Guard stations and vessels communicate on so-called "LANT" frequencies. Station Curtis Bay operates on LANT 30 (162.125) and Station Annapolis operates on LANT 40 (164.55). Can anyone help us locate other LANT frequencies? Coast Guard aviation frequencies, where in use, typically include 381.8 and 383.9. 282.8 is a joint/on-scene SAR frequency.

Potomac River Rescues

In recent years a record number of fatalities have occurred on the upper, non-tidal portion of the Potomac River, north of Little Falls. Some important frequencies to keep in mind during Potomac River rescues include Montgomery County Fire (153.95), Fairfax County Fire (460.55, 460.6 and 460.625) and US Park (166.725, 166.85, 166.925, 166.95 and 167.075). Multiple helicopters often coordinate on 122.75.

BITS & PIECES

Also from R. Crain comes news that the Annapolis City Police Department switched its operations to the Anne Arundel County trunked system on March 24. The city plans to retain the high-band VHF police allocations (155.97, 156.21 and 159.21) for other city services.

Both Mike Meehan and Bill Hardman report hearing the Frederick County fire dispatcher simulcasting on 46.34 and 153.845 (151.4 Hz). Frederick County local government radio users vacated 153.845 for the trunked system several months ago. As a result, the county may be simulcasting the fire dispatcher onto 153.845 merely to make the frequency appear as if it's still in use.

FUTURE MEETING PLANS

Our sincere thanks to Gene Lichtman who invited us to join his tour of the DC Fire communications center. At the present time, we have no tours scheduled. We do, however, plan to schedule a club-organizational meeting in a few weeks to discuss the possible need for bylaws, creation of a formal CHM board, etc. This meeting will be organizationally oriented only (with little, if any, scanner talk). If you have an interest in participating in club organizational activities, please call Alan to be notified of such activities.

VHF Marine Radio Frequencies

Most modern marine radios have capability of operating on all marine channels. While specifically licensed on selected marine channels, any marine channel should be considered "fair game" for communications by local government vessels. The entire American VHF marine radio configuration, as authorized by Part 83 of the FCC Rules, appears below.

Frequency	Mode	Channel	Description
156.0500	s	01A	
156.1000	s	02A	
156.1500	s	03A	
156.2000	s	04A	
156.2500	s	05A	
156.3000	s	06	Intership Safety
156.3500	s	07A	Commercial (Intership & Ship-to-Coast)
156.4000	s	08	Commercial (Intership)
156.4500	s	09	Commercial and Non-commercial (Intership & Ship-to-Coast)
156.5000	s	10	Commercial (Intership & Ship-to-Coast)
156.5500	s	11	Commercial (Intership & Ship-to-Coast)
156.6000	s	12	Port Operations (Intership & Ship-to-Coast)
156.6500	s	13	Navigational - (Ship's) Bridge to (Ship's) Bridge
156.7000	s	14	Port Operations (Intership & Ship-to-Coast)
156.7500	s	15	Environmental (Receive Only)
156.8000	s	16	DISTRESS, SAFETY & CALLING (Intership & Ship-to-Coast)
156.8500	s	17	State Control
156.9000	s	18A	Commercial (Intership & Ship-to-Coast)
156.9500	s	19A	Commercial (Intership & Ship-to-Coast)
161.6000	d	20	Port Operations (Intership & Ship-to-Coast)
157.0000	-	20	Ship Transmit (Paired with 161.6)
157.0500	s	21A	Intra-Coast Guard Working Frequency
157.1000	s	22A	Coast Guard Liaison & Maritime Safety Information Broadcasts
157.1500	s	23A	Intra-Coast Guard Working Frequency
161.8000	d	24	Public Correspondence (Ship-to-Coast)
157.2000	-	24	Ship Transmit (Paired with 161.8)
161.8500	d	25	Public Correspondence (Ship-to-Coast)
157.2500	-	25	Ship Transmit (Paired with 161.85)
161.9000	d	26	Public Correspondence (Ship-to-Coast)
157.3000	-	26	Ship Transmit (Paired with 161.9)
161.9500	d	27	Public Correspondence (Ship-to-Coast)
157.3500	-	27	Ship Transmit (Paired with 161.95)
162.0000	d	28	Public Correspondence (Ship-to-Coast)
157.4000	-	28	Ship Transmit (Paired with 162.0)
156.0250	s	60A	Port Operations (Intership & Ship-to-Coast)
156.0750	s	61A	Port Operations (Intership & Ship-to-Coast)
156.1250	s	62A	Commercial (Intership)
156.1750	s	63A	Non-commercial (Intership & Ship-to-Coast)
156.2250	s	64A	Non-commercial (Intership & Ship-to-Coast)
156.2750	s	65A	Digital Selective Calling
156.3250	s	66A	Non-commercial (Intership & Ship-to-Coast)
156.3750	s	67	Non-commercial (Intership)
156.4250	s	68	Port Operations (Intership & Ship-to-Coast)
156.4750	s	69	Port Operations (Intership & Ship-to-Coast)
156.5250	s	70	Transmitting Prohibited (Guard Band for 156.8)
156.5750	s	71	Transmitting Prohibited (Guard Band for 156.8)
156.6250	s	72	Port Operations (Intership)
156.6750	s	73	Non-commercial (Intership & Ship-to-Coast)
156.7250	s	74	Commercial (Intership & Ship-to-Coast)
156.7750	s	75	Commercial (Intership & Ship-to-Coast)
156.8250	s	76	Marine Environmental Protection Frequency
156.8750	s	77	US Government
156.9250	s	78A	Coast Guard Command & Control Frequency
156.9750	s	79A	Public Correspondence (Ship-to-Coast)
157.0250	s	80A	Public Correspondence (Ship-to-Coast)
157.0750	s	81A	Ship Transmit (Paired with 161.825)
157.1250	s	82A	Public Correspondence (Ship-to-Coast)
157.1750	s	83A	Ship Transmit (Paired with 161.875)
161.8250	d	84	Public Correspondence (Ship-to-Coast)
157.2250	-	84	Ship Transmit (Paired with 161.825)
161.8750	d	85	Public Correspondence (Ship-to-Coast)
157.2750	-	85	Ship Transmit (Paired with 161.875)
161.9250	d	86	Public Correspondence (Ship-to-Coast)
157.3250	-	86	Ship Transmit (Paired with 161.925)
161.9750	d	87	Public Correspondence (Ship-to-Coast)
157.3750	-	87	Ship Transmit (Paired with 161.975)
157.4250	s	88A	Commercial (Intership)

In the United States, Public Safety frequency allocations lie between 156.0 and 156.24. As a result, marine channels which also fall within this range are theoretically off-limits to American marine users. Marine channels 1 through 5 and 60 through 64 are, however, used in selected regions of the United States in conjunction with the USCG Vessel Traffic Services (VTS). The "A" (Alfa/Alpha) suffix added to selected channels designates the channels as simplex American marine channels. The international version of the "A" channels operates in the duplex mode.

Please address all correspondence to Alan. We encourage readers to submit material and to write articles which relate to the hobby. Additionally, we welcome frequency and visitor requests, but kindly include a SASE.

Alan Henney
6912 Prince George's Avenue
Takoma Park, MD 20912-5414
301-270-2531 (voice) / 301-270-5774 (fax)

Newsletter Staff:
Dr. Willard Hardman, Executive Editor
Mike Peyton and Dave Clark, Distribution
Brent Baker, NewsScan Editor
Ken Fowler, Amateur Radio Net Coordinator
Alan Henney, General Editor and Acting Treasurer

The Capitol Hill Monitor is the non-profit monthly newsletter of the Capitol Hill Monitors. The newsletter keeps scanner enthusiasts abreast of local meetings, frequency profiles and other topics of interest. Dues (which includes 12 issues) are $8. Kindly make checks payable to Alan Henney.

Meeting Coordinators:
Mike Peyton, Maryland Coordinator (703-902-6241)
Ken Fowler, Virginia Coordinator (703-385-2165)

Capitol Hill Monitor's Scanner/Shortwave Net:
Listen for the CHM net, hosted by Ken Fowler, at 7:30 p.m. on the first and third Monday of each month on 146.91 MHz.

Frequency Forum Computer Bulletin Board:
We encourage computer users to log onto Jack Anderson's Frequency Forum computer BBS at 703-207-9622 (8-N-1). Frequency Forum is the official electronic gathering place for readers of the Capitol Hill Monitor!

Important reminder!

ANDREWS
AIR FORCE
BASE
Air Show

The Thunderbirds will perform for the May 14-15 open house. Call 301-981-6681 for details.